US ENVIRONMENTAL PROTECTION AGENCY
Region 1 New England - OEME
11 Technology Drive, North Chelmsford, MA 01863

Inspection Report

Date:	February 12, 2015
Subject:	Foster Brothers Farm Inc. - Concentrated Animal Feeding Operation (CAFO) Inspection
Prepared by:	Lisa Thuot – USEPA Compliance Inspector

I. Facility Information:

Name:	Foster Brothers Farm Inc.
Location:	58 Lower Foote Street Middlebury, VT 05753
Owner/Operator:	Robert Foster, Co-Owner George Foster, Co-Owner
Mailing Address:	297 Lower Foote St. Middlebury, VT 05753

II. Inspection Information:

Date of Inspection:	July 29, 2014
EPA Inspector(s):	Lisa Thuot – Compliance Inspector (EPA Region 1/OEME) Andrew Spejewski – Compliance Officer (EPA Region 1/OES) Diane Boisclair – Compliance Inspector (EPA Region 1/OES)
Facility Contact(s) During Inspection:	Robert Foster, co-owner George Foster, co-owner
State Contact(s):	Nate Sands, VT Agency of Agriculture
Weather Conditions:	Partly sunny, approx. 72°F. Rain recorded (0.62") on 7/23/14

III. Purpose of Inspection:

The purpose of the inspection was to assess applicability of the Concentrated Animal Feeding Operation requirements under the Clean Water Act at 40 C.F.R. Part 122.23.

Entry Procedures
The inspection was announced in advance by telephone on July 25, 2014 to Jennifer, an employee of Vermont Natural Ag. Products, Inc. She said the Vermont Agency of Agriculture had recently contacted her to arrange the farm inspection. We arrived at 1300 hours. EPA inspectors presented our credentials and met with Robert Foster and George Foster. Jonas Foster, a relative of the owners, was present when we arrived but he did not accompany us on the farm tour. Inspectors washed and disinfected their boots before walking around the farm per EPA Biosecurity procedures.

IV. Inspection Information

Background:
Foster Brothers Farm Inc. ("the farm") is a dairy operation with ownership that spans five generations of the Foster family. The farm maintains approximately 506 mature dairy cows (which includes 460 milking and 46 dry cows). The farm has coverage under the VT Agency of Agriculture's medium farm operations (MFO) permit.

The Fosters also own and operate Vermont Natural Ag Products, Inc. which produces cow, horse, and poultry compost and topsoil for retail sale at garden centers in the Northeast. The Fosters use their own manure and take in outside manure from area farms for their products. There is a separate lagoon at the compost facility.

The farm's cropland includes about 1,500-1,600 acres in Middlebury, New Haven, Weybridge, and Cornwall which is owned by the Fosters. They also rent an additional 500 acres. Crops include soybean, corn, and hay.

Recent improvements at the farm include an expansion of the barn 2 years ago, and the installation of an NRCS-designed silage leachate collection system 8 years ago. French drains and roof drains around barns collect and divert clean water to a nearby drainage ditch. In 1982, the owners installed a manure digester which is no longer in operation. The digester was damaged 3 years ago by a roof collapse from heavy snow accumulation.

The nearest water of the U.S. is an unnamed tributary to Otter Creek, located approximately 0.6 miles south of the farm production area.

The farm also has 2 heifer facilities (Laframboise and Howard) located on Foote Street.

Farm Tour:
Sawdust is used for animal bedding. Manure is scraped from barns (main barn, dry cow and heifer barn) by skid steer. Manure from the main barns are pushed off ramps into 2 manure transfer areas, located at the east end and west end of the barns. Trucks back into the transfer areas to collect the manure. Both manure transfer areas have a concrete courtyard-style pad with a drain. At the east transfer area, residual manure solids and liquid runoff were flowing into the drain on the concrete pad (photos #1-3). The drain was partially covered in solids. George Foster said he thought the drain might be plugged; however no water was observed pooling around the drain. The east transfer area drain is connected to a vegetated drainage ditch/swale

which flows south from the farm production area (photo #4). In 2009, Nate Sands said he and a colleague followed this drainage ditch/swale for about 1 mile and were unable to determine if the ditch reached or discharged to a water of the state. At the west manure transfer area, runoff was flowing into the concrete pad drain which connects to a man-made ditch, which then flows into the vegetated drainage ditch/swale that receives runoff from the east transfer area (photos #5-6). The Agency of Agriculture previously encouraged the owners to install infrastructure to alleviate potential waste/manure runoff from the transfer area drains into the drainage ditch.

Manure (and milkhouse wastewater) is transferred by truck to the remote manure pit, located about 0.6 miles east of the production area. The remote manure pit was built in 1980. We observed the remote manure pit during the inspection and did not observe any issues in this area (photo #12). The manure digester was not in use/not operational. The former digester bays are now used for temporary storage of manure solids. Previously, the digester captured methane and produced heat for farm buildings.

The silage bunkers have a leachate/runoff collection system designed by NRCS that was installed 8 years ago (photos #7-8). The system includes low-flow and high-flow treatment. Low-flow runoff is directed to the remote manure pit through an underground pipe, and high-flow runoff enters a man-made vegetated treatment and settling area next to the bunkers. Water was pooling around the concrete drain bay of the leachate/runoff collection system. The intake screen on the concrete bay had a significant build-up of solids which required a clean-out. Accumulated solids were entering the high-flow treatment area creating a flow channel (photos #9-11).

Runoff from the youngstock barns (located on the north side of the main farm) flows into adjacent corn fields.

The compost facility (Vermont Natural Ag Products, Inc.) is situated about 0.25 miles south of the main farm on Lower Foote Street. The compost facility has their own lagoon, and leachate from the compost piles is land-applied to cropland. Animal mortalities from the main farm and two heifer farms are also brought to the compost facility.

Records Review:
The farm has a nutrient management plan (NMP) prepared by Bordeau Brothers of Middlebury, VT which was last updated in 2014. The most recent soil samples were collected on 2/24/14 and analyzed by Agro-One in Ithaca, NY for nitrogen (N), ammonia-N, organic N, phosphorous, phosphate equivalent, potassium, and potash equivalent. Other recent soil sampling tests were done 11/21/13 and 12/9/13. A medium farm operation (MFO) report was also prepared for submittal to the Agency of Agriculture.

V. Exit Briefing

An exit briefing was conducted by EPA inspectors and Nate Sands with George Foster and Robert Foster. The following items were discussed:

- The entrance screen and concrete drain bay of the silage leachate/runoff collection system must be cleaned of accumulated solids.
- The two manure transfer areas should be kept as clean as possible to minimize manure discharges from the concrete pad drains into the adjacent vegetated drainage ditch/swale. Nate Sands recommended the owners periodically check the transfer areas and keep track of discharges into the drains.

Enclosures/Attachments:

Inspection photos
Aerial photo/picture map